

## New England Biolabs Certificate of Analysis

**Product Name:** SbfI  
**Catalog Number:** R0642L  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Lot Number:** 10008626  
**Expiration Date:** 04/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA  
**Specification Version:** PS-R0642S/L v1.0

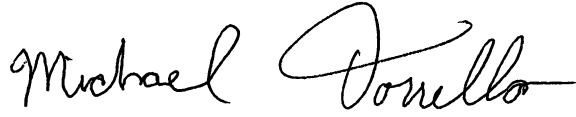
SbfI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0642LVIAL	SbfI	0471804	Pass
B7204SVIAL	CutSmart® Buffer	3051803	Pass

Assay Name/Specification	Lot # 10008626
<b>Protein Purity Assay (SDS-PAGE)</b> SbfI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 50 units of SbfI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 10 Units of SbfI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of Lambda DNA with SbfI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with SbfI.	Pass

This product has been tested and shown to be in compliance with all specifications.



Anthony Francis  
Production Scientist  
06 Jun 2018



Michael Tonello  
Packaging Quality Control Inspector  
06 Jun 2018